2. (Amended) The rotary electric machine of claim 1,

wherein the rotor includes a pair of rotor cores, each of which includes claw portions generating north and south poles and a boss portion having a rotor winding therearound;

wherein the pair of rotor cores forms a Roundel-type core and is arranged opposite to each other at an end surface of the boss portion; and

wherein the magnetic coating is applied to at least one outer peripheral surface of the claw portions, the end surface of the boss portion and an inner peripheral surface of the stator core.

13. (Amended) An alternator for a vehicle, the alternator comprising:
a frame supporting a rotor and a stator;

wherein the frame has a front bracket and a rear bracket, the front and rear brackets securing the stator and the rotor therebetween;

wherein the rotor includes a rotation shaft, a core, a first pole, a second pole, a ring, a field core, a field winding bobbin, and a field winding;

wherein the stator includes a stator core, and a stator coil;

wherein the field core and the core define a first air gap, the core and the first pole define a second air gap, the first pole and the stator define a third air gap, the stator and the second pole further define the third air gap, and the second pole and the field core define a fourth air gap; and

wherein a magnetic coating is applied on at least one of the field core or the core, which define the first air gap.

14. (Amended) The alternator of claim 13, wherein the magnetic coating is made of magnetic particles and a binding material to bind the magnetic particles.